

§Appl. No. 09/856,044  
Amdt. dated August 9, 2005  
Reply to Office Action of, May 10, 2005

**Listing of Claims:**

Please **amend** the claims as follows:

**Listing of Claims:**

**Claim 1** (Cancelled)

**Claim 2** (Currently Amended) A method of claim 13, wherein the ~~sequence~~ database ~~is a~~ comprises protein sequence database information.

**Claim 3** (Currently Amended) A method of claim 13, wherein the ~~sequence~~ database ~~is a~~ comprises nucleotide sequence database information.

**Claim 4** (Currently Amended) A method of claim 13, wherein the mass spectrum is obtained from ~~spectrometry data~~ is MALDI-TOF ~~data~~ mass spectrometry.

**Claim 5** (Currently Amended) A method of claim 13, wherein the mass spectrum ~~spectrometry~~ data is obtained by electrospray on a time-of-flight, quadrupole, or ion trap mass analyzer.

**Claim 6** (Cancelled)

**Claim 7** (Previously Presented) A method of claim 13, further comprising:  
performing a mass spectral analysis on a sample comprising one or more microorganisms.

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**Claim 8 (Previously Presented)** A method of claim 13, further comprising:  
identifying molecular weights of proteins in a mass spectrum of said sample.

**Claim 9 (Previously Presented)** A method of claim 13, wherein said sample comprises at least two different species of microorganisms.

**Claim 10 (Previously Presented)** A method of claim 13, wherein the sequence database comprises NCBI/SwissProt/EMBL database.

**Claim 11 (Previously Presented)** A method of claim 13, further comprising chemical or enzymatic digestion of a protein in said sample.

**Claim 12 (Previously Presented)** A method of claim 13, wherein said sequence database comprises nucleotide or protein sequence information that is converted into molecular weight information.

**Claim 13 (Currently Amended)** A method of identifying one or more unknown microorganisms in a sample comprising:

searching a database for the molecular weights of a plurality of intact, undigested proteins obtained from a mass spectrum of a sample, ~~whereby~~ wherein said one or more unknown microorganisms are identified,

wherein said sample comprises a plurality of said intact, undigested proteins from one or more unknown microorganisms, and said database is searched for more than one different said protein, and

wherein said database comprises molecular weight information deduced from nucleotide or protein sequence information obtained from genomic sequencing of known microorganisms.

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**Claim 14 (Cancelled)**

**Claim 15 (Previously Presented)** A method of claim 13, wherein the database searching consists of searching a database for a plurality of intact, undigested proteins.

**Claim 16 (Previously Presented)** A method of claim 13, further comprising inputting said molecular weights obtained from said mass spectrum.